

CLAIMS

What is claimed is:

1. An apparatus for stabilizing and restraining a limb of a patient in an imaging device, the apparatus comprising:
 - (a) a castable sleeve, the castable sleeve including a proximal layer and a distal layer, the proximal layer contacting at least a portion of the patient's limb; and
 - (b) an expandable sleeve surrounding the distal layer of the castable sleeve.
2. An apparatus in accordance with claim 1, wherein the castable sleeve has an inner space between the proximal and distal layers, the inner space being capable of receiving a quick cast material.
3. An apparatus in accordance with claim 2, wherein the castable sleeve includes at least one valve for introduction of the quick cast material.
4. An apparatus in accordance with claim 3, wherein inner tubing is connected to the at least one valve and includes dispersion holes that permit the quick cast material to be optimally dispersed throughout the castable sleeve.
5. An apparatus in accordance with claim 2, further comprising pressure control via a pressure regulated delivery system of the quick cast material.
6. An apparatus in accordance with claim 1, wherein the expandable sleeve includes at least one valve for introduction of an expandable material therein.
7. An apparatus in accordance with claim 1, further comprising a rip cord for aiding in removal of the apparatus from the limb.

8. An apparatus in accordance with claim 1, further comprising at least one subchamber within the castable sleeve.
9. An apparatus in accordance with claim 1, further comprising at least one subchamber within the expandable sleeve.
10. An apparatus for stabilizing and restraining a patient in an imaging device, the apparatus comprising a castable sleeve, the castable sleeve including a proximal layer and a distal layer, the proximal layer contacting at least a portion of the patient's body, wherein the castable sleeve has an inner space between the proximal and distal layers, the inner space in fluid communication with a quick cast material.
11. An apparatus in accordance with claim 10, further comprising an expandable sleeve.
12. An apparatus in accordance with claim 11, wherein the expandable sleeve includes at least one valve for introduction of an expandable material therein.
13. An apparatus in accordance with claim 12, wherein the inflated expandable sleeve is deflated via evacuation of the air through the at least one valve.
14. An apparatus in accordance with claim 11, wherein the expandable sleeve comprises concentric layers of fluid impermeable material.
15. An apparatus in accordance with claim 11, further comprising at least one subchamber within the expandable chamber.
16. An apparatus for stabilizing and restraining a patient in an imaging device, the apparatus comprising:

- (a) a castable sleeve, expandable sleeve, at least one valve and inner tubing;
 - (b) the expandable sleeve surrounding and attached to the castable sleeve;
 - (c) the castable sleeve including a proximal layer and a distal layer, the proximal layer contacting at least a portion of the patient's body, wherein the castable sleeve has an inner space between the proximal and distal layers, the inner space in fluid communication with a quick cast material;
 - (d) the at least one valve with one end of at least one of the at least one valves in the inner space; and
 - (e) the inner tubing is connected to the at least one valve and includes dispersion holes that permit the quick cast material to be optimally dispersed throughout the castable sleeve.
17. An apparatus in accordance with claim 16, wherein the castable sleeve forms a cast around a surface coil, the surface coil having first been wrapped around the portion of the patient's body.
18. An apparatus in accordance with claim 16, wherein the distal layer comprises means for securing the apparatus to an MRI scanner.
19. An apparatus in accordance with claim 16, wherein the imaging device is an MRI coil.
20. An apparatus in accordance with claim 16, wherein the imaging device is a mock coil.